## DO NOW

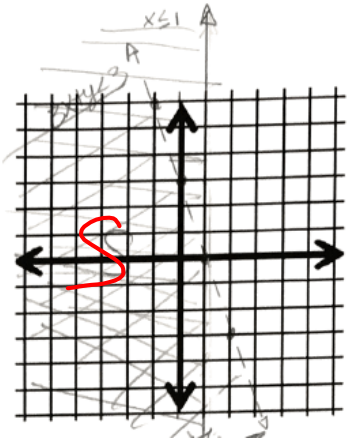
The Hobby Lobby sells radio-controlled helicopters and boats. The store makes a profit of $35 on each helicopter ($h$) and $32 on each boat ($b$). The store hopes to make a profit of at least $600 during the holiday season from its sales of helicopters and boats. Which inequality represents this situation?

(1) $35h + 32b \geq 600$
(2) $35h + 32b \leq 600$
(3) $35h + 32b > 600$
(4) $35h + 32b < 600$

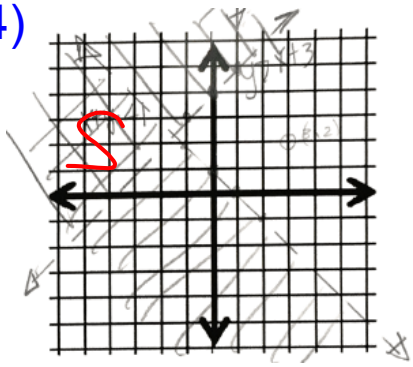
Dec 5-10:03 AM

## HW Answers

3)

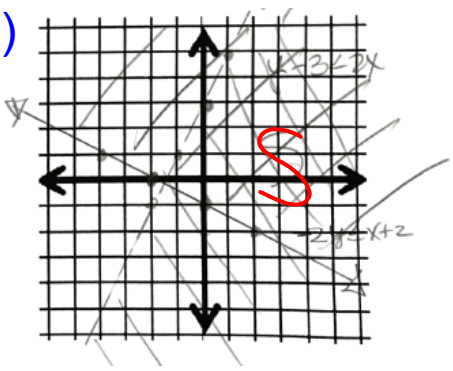


4)



No (3, 2) is not in the solution set

5)



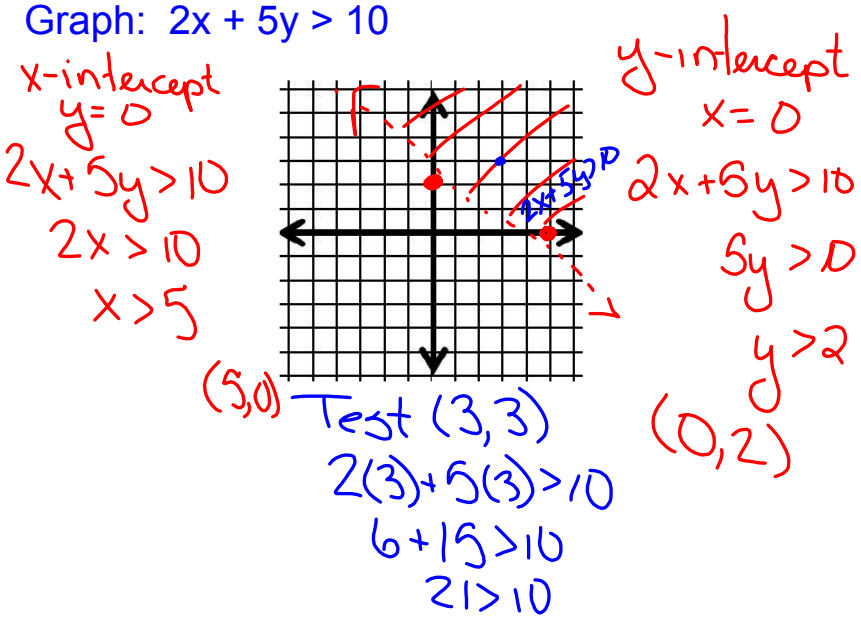
Nov 8-12:09 PM

## Graphing Real World Inequalities

If your equation is written in Ax + By > C form, use x- and y-intercepts to graph the line!

Standard Form

Graph: 2x + 5y > 10




Dec 5-8:42 AM

## Graphing Real World Inequalities

Make sure that your answer makes sense in the context of the problem!

ie; No negative people, time, or distance!

Oct 31-11:31 AM

Suppose you intend to spend no more than $60 buying books. Hardcover books cost $12 and paperback cost $5. List two possible combinations of types of books you can buy.

let x = paperback
y = hardcover

$12y + 5x \leq 60$

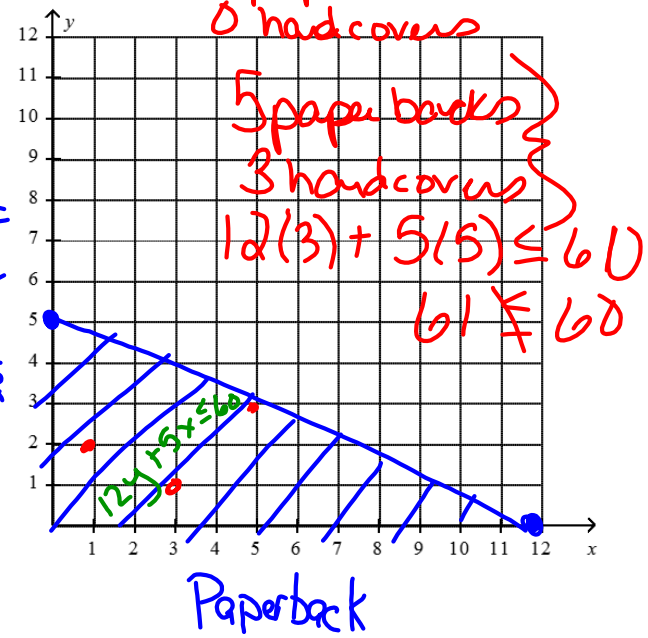
$-5x \quad -5x$

$\frac{12y}{12} \leq \frac{-5x}{12} + \frac{60}{12}$

$y \leq -\frac{5}{12}x + 5$

0 paperbacks
0 hardcovers

5 paperbacks
3 hardcovers
$12(3) + 5(5) \leq 60$
$61 \not\leq 60$




Dec 5-8:46 AM

Kyle works part-time for a local contractor. He makes $10 an hour if he works with the plumber, and $12.50 an hour if he works with the mason. Kyle cannot work more than 10 hours per week. Graph the two inequalities that represent how many hours Kyle needs to work at each job if he plans to earn at least $100 per week. Label the solution set with the letter **S** and state one solution that would work.

let x = hrs for plumbing
y = hrs for mason

$10x + 12.50y \geq 100$

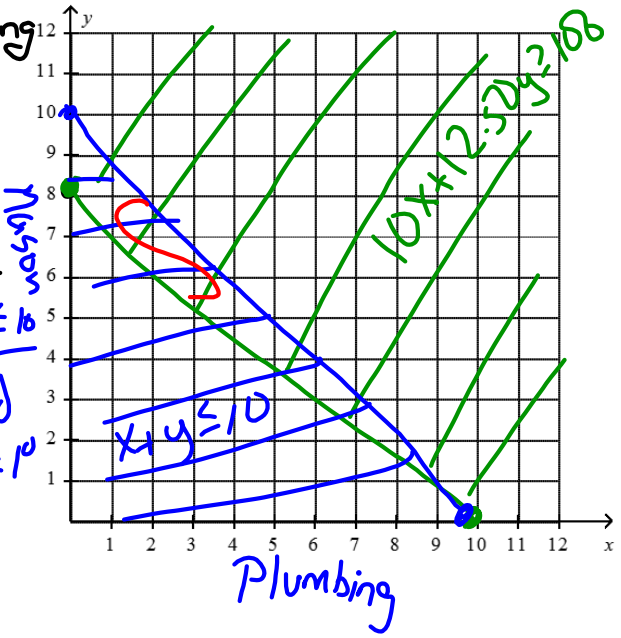
$x + y \leq 10$

$10x + 12.50y \geq 10$

| x-int | y-int |
|---|---|
| $10x = 100$ | $12.5y = 100$ |
| $x = 10$ | $y = 8$ |

$x + y \leq 10$

| x | y |
|---|---|
| $x = 10$ | $y = 10$ |




Dec 5-9:19 AM